

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Eric Hyman on 10/27/2009.

The application has been amended as follows:

Claim 7 at line 2 read:

"claimed in claim 6"

Now reads:

---"claimed in claim 1"---

Claim 8 at line 2 read:

"claimed in claim 6"

Now reads:

---"claimed in claim 1"---

Claim 10 at line 2 read:

"claimed in claim 9, wherein the guiding layer has a thickness"

Now reads:

---"claimed in claim 1, wherein the guiding layer of the phase control section has a thickness"---

Claim 5 is cancelled.

Allowable Subject Matter

Claims 1-3, 7, 8, and 10-14 are allowed.

The following is an examiner's statement of reasons for allowance:

Claim 1 is believed to be allowable as the prior art failed to teach or suggest the details of the mode locked laser diode outlined therein. Firstly, the Examiner notes the arguments filed (08/28/2009) with the pre-Appeal Brief were found persuasive as to the combination of Sartorius in view of Huang being non-obvious. The combination does not appear to make sense as the device of Huang functions with a combination of the lossy grating as well as a gain type grating. It is not obvious to insert only the lossy type grating into Sartorius and assume the device would function as outlined.

The Examiner also notes the prior art was found to teach the general laser device outlined in the claims (see Sartorius), but lacked the more specific nature of the limitations therein. The prior art taught a similar device using a complex grating (see US 2003/0147617) in 2 different embodiments. The first embodiment (figs.1-11) failed to teach a complex grating, the presence of a second optical waveguide, and the strength/phase of the feedback light was not used to tune the device. Embodiment 2 (figs.12-13) used a complex grating, but failed to teach independent electrodes and

device regions, no strength/phase coupling, and a phase section waveguide to be aligned with the active structure.

The claim is therefor believed to be in condition for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOD T. VAN ROY whose telephone number is (571)272-8447. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on (571)272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TVR/

/Minsun Harvey/
Supervisory Patent Examiner, Art Unit 2828